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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/755,458	01/12/2004	Reinhard Burk	16216	1064
4859	7590	03/06/2006	EXAMINER	
MACMILLAN SOBANSKI & TODD, LLC ONE MARITIME PLAZA FOURTH FLOOR 720 WATER STREET TOLEDO, OH 43604-1619			TRAN, DIEM T	
			ART UNIT	PAPER NUMBER
			3748	

DATE MAILED: 03/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/755,458

Applicant(s)

BURK, REINHARD

Examiner

Diem Tran

Art Unit

3748

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 4, 5, 8-10, 12, 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Meyers et al. (US Patent 6,062,178).

Regarding claims 1, 9, Meyers discloses an exhaust gas flow circuit for reducing pressure in an exhaust system of an internal combustion engine, comprising:

a pumping unit including an inlet in fluid communication with an outlet of a forward portion of the exhaust system, and an outlet in fluid communication with an inlet of a rearward portion of the exhaust system, said pumping unit selectively pumping exhaust gas from the forward portion to the rearward portion of the exhaust system, and a power source driving said pumping unit (see Figure 3, col. 2, lines 65-67, col. 3, lines 1-4).

Regarding claims 2, 10, Meyers further discloses that a bypass passage arranged in parallel flow relation with said pumping unit (32) between said pumping unit inlet and outlet; and a bypass valve (34b) for opening said bypass passage and providing a flow path for exhaust gas from the forward portion to the rearward portion of the exhaust system in parallel with said pumping unit, and for closing said bypass passage to prevent exhaust gas flow there through (see Figure 3).

Regarding claim 4, Meyers further discloses that said bypass valve (34b) is located in said bypass passage (see Figure 3).

Regarding claims 5, 12, Meyers further discloses that said pumping unit is a gas pump (see col. 2, lines 65-67).

Regarding claims 8, 15, Meyers further discloses that said power source is an electric motor (see col. 3, lines 2-4).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meyers et al. (US Patent 6,062,178) in view of Hansel et al. (US Patent 5,451,385).

Regarding claims 3, 11, Meyers discloses all the claimed limitations as discussed in claims 1, 9 above, Meyers further discloses that said bypass valve (34b) opens or closes said bypass passage when an engine load is relatively high or low (see col. 3, lines 9-15, 32-35); however, fails to disclose that said bypass valve opens said bypass passage when a mass flow rate of exhaust gas in the exhaust system is relatively high and closes said bypass passage when the mass flow rate of exhaust gas is relatively low. Hansel teaches that a mass flow rate of exhaust gas in the exhaust system increases as the engine load increases (i.e. a mass flow rate of exhaust gas is directly proportional to an engine load) (see col. 10, lines 65-66). It would have

Art Unit: 3748

been obvious to one having ordinary skill in the art at the time the invention was made, to have utilized the teaching of Hansel in the Meyers system, since the use thereof would have been conventional in the art.

Claims 6, 7, 13, 14, 16, 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meyers et al. (US Patent 6,062,178) in view of Shimada (JP 56-88910).

Regarding claims 6, 13, Meyers discloses all the claimed limitations as discussed in claims 1, 9 above, however, fails to disclose that a catalytic converter is located in the forward portion upstream from said pumping unit inlet. Shimada teaches that it is conventional in the art, to utilize a catalytic converter (4) being located in the forward portion upstream from said pumping unit inlet (see Figure II).

It would have been obvious to one having ordinary skill in the art at the time the invention was made, to have utilized the teaching of Shimada in the Meyers system, since the use thereof would have removed the harmful emissions in the exhaust gas.

Regarding claims 7, 14, Meyers discloses all the claimed limitations as discussed in claims 1, 9 above, however, fails to disclose that the engine includes an intake system that is naturally aspirated. Shimada teaches a system for reducing back pressure of an engine without using turbocharger for the intake system (see Figure II).

It would have been obvious to one having ordinary skill in the art at the time the invention was made, to have utilized the teaching of Shimada in the Meyers system, since the use thereof would have been conventional in the art to improve an engine performance of a naturally aspirated engine.

Art Unit: 3748

Regarding claim 16, Meyers discloses an exhaust gas system for an internal combustion engine, comprising:

an exhaust manifold for carrying exhaust gas from the engine;

a pumping unit located in a housing, said pumping unit including an inlet in fluid communication with an outlet of a forward portion of the exhaust system, and an outlet in fluid communication with an inlet of a rearward portion of the exhaust system, said pumping unit selectively pumping exhaust gas from the forward portion to the rearward portion of the exhaust system, and a power source driving said pumping unit (see Figure 3, col. 2, lines 65-67, col. 3, lines 1-4); however, fails to disclose that a catalytic converter is located upstream of said pumping unit. Shimada teaches that it is conventional in the art, to utilize a catalytic converter (4) located in the forward portion upstream from said pumping unit inlet to purify the exhaust gas (see Figure II).

It would have been obvious to one having ordinary skill in the art at the time the invention was made, to have utilized the teaching of Shimada in the Meyers system, since the use thereof would have removed the harmful emissions in the exhaust gas.

Regarding claim 17, Meyers further discloses that a bypass passage arranged in parallel flow relation with said pumping unit (32) between said pumping unit inlet and outlet; and a bypass valve (34b) for opening said bypass passage and providing a flow path for exhaust gas from the forward portion to the rearward portion of the exhaust system in parallel with said pumping unit, and for closing said bypass passage to prevent exhaust gas flow there through (see Figure 3).

Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Momose et al. (U.S. Pat. No. 4,418,532), Hurst (US Patent 3,712,065) disclose a system for reducing the back pressure of an internal combustion engine.

Conclusion

Any inquiry concerning this communication from the examiner should be directed to Examiner Diem Tran whose telephone number is (571) 272-4866. The examiner can normally be reached on Monday -Friday from 8:00 a.m.- 6:00p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion, can be reached on (571) 272-4859. The fax number for this group is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 800-786-9199 (toll-free).



Diem Tran
Patent Examiner
Art unit 3748

DT
February 28, 2006



THOMAS DENION
SUPERVISORY PATENT EXAMINER
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